# **Illinois Rivers and Lakes**Fact Sheets



Much of the following information was obtained from the Illinois Environmental Protection

Agency (IEPA), particularly from *Fact Sheets* and *Illinois Water Quality Reports*. The IEPA's water quality program is designed to protect the beneficial uses or "designated uses" of the water resources of Illinois. In designing uses for a water body, a state takes into consideration the use and value of the water body: for public water supply; for propagation of fish, shellfish and wildlife; and for recreational, agricultural, industrial and navigational purposes. A "good" rating means a river or lake meets the needs of all designated uses. "Fair" means water quality has been impaired, and the water body meets the needs of a designated use most of the time. A water body that is rated as "poor" has water quality that has been severely impaired and cannot support a designated use to any degree.

#### **IEPA**

P.O. Box 19276 1021 North Grand Avenue East Springfield, IL 62794-9276 217-782-3397

#### REFERENCES

Illinois Department of Natural Resources and The Nature of Illinois Foundation.1994. *The changing Illinois environment: critical trends, volume 2 and summary report.* Springfield, Illinois. 89 pp.

Illinois Environmental Protection Agency. 1994. *Illinois water* quality report 1992-1993. *Volume 1*. Illinois Environmental Protection Agency, Springfield, Illinois. 258 pp.

Illinois Environmental Protection Agency. 1995. *Fact sheets* #1-33. Illinois Environmental Protection Agency, Springfield, Illinois.

Illinois Environmental Protection Agency. 1996. *Illinois water quality report 1994-1995. Volume I.* Illinois Environmental Protection Agency, Springfield, Illinois. 240 pp.

Illinois Geographical Society. 1996. *Illinois: a geographical survey.* Kendall Hunt Publishing Company, Dubuque, Iowa. 344 pp.

The Southern Illinoisan. 1995. "Woods and water – Rend Lake." May 14 Issue. Carbondale, Illinois.

United States Army Corps of Engineers. 1991. *Rend Lake Master Plan, Project Description.* 

# Big Muddy River

LENGTH - 166 miles

**DRAINAGE** – 1,500,100 acres in Washington, Jefferson, Perry, Franklin, Jackson and Williamson counties

TRIBUTARIES/CITIES – major tributaries: Casey Fork, Middle Fork Big Muddy River, Little Muddy River, Crab Orchard Creek, Beaucoup Creek; major lakes: Rend Lake, Crab Orchard Lake, Kinkaid Lake; major cities: Mt. Vernon, Benton, West Frankfort, Marion, Herrin, Du Quoin, Carbondale, Murphysboro

WATER QUALITY – IEPA (1995): 113.9 stream miles assessed with 0.7 miles "good," 113. 2 miles "fair"

**POLLUTANT SOURCES** – agricultural practices, mining, municipalities

**OTHER FACTS** – The Big Muddy River joins the Mississippi River at river mile 76.

## Cache River Basin

**LENGTH** – 57.4 miles in Ohio River basin; 35.9 miles in Mississippi River basin

**DRAINAGE** – 614,100 acres in Union, Johnson, Alexander, Pulaski and Massac counties

TRIBUTARIES/CITIES – major streams: Cache River, Cypress Creek, Main Ditch, Dutchman Creek; major cities: Metropolis, Vienna

WATER QUALITY - IEPA (1995): "fair"

**POLLUTANT SOURCES** – agricultural runoff, hydrologic/habitat modification, urban runoff, point sources

OTHER FACTS – Constructed channels, diversions and levees have divided the former Cache watershed into two watersheds. The northern, east-central and southeast portions of the Upper Cache River watershed drain into the Ohio River via Post Creek Cutoff, a human-made diversion channel. The west-central and southwest portions of the Lower Cache River watershed drain to the Mississippi River via a mile-long diversion channel. Sedimentation is severe in many of the lowland stream reaches.

# Carlyle Lake

**LOCATION** – Clinton, Bond and Fayette counties

SIZE/DEPTH – surface area = 24,580 acres; largest inland lake in Illinois; average depth = 11 feet; maximum depth = 38 feet

**WATERSHED** – 1,738,880 acres

**FORMED** – 1966 by damming the Kaskaskia River; managed by the U.S. Army Corps of Engineers

USES – public water supplies, recreation

WATER QUALITY - IEPA (1995): "fair"

**POLLUTANT SOURCES** – agriculture, shoreline erosion, recreational activities, municipal point sources

**CLASSIFICATION** – eutrophic

# Clinton Lake

**LOCATION** – De Witt County

**SIZE/DEPTH** – surface area = 4,895 acres; average depth = 15.6 feet; maximum depth = 45 feet

WATERSHED - 189,440 acres

 ${f FORMED-1977}$  by damming Salt Creek; owned by Illinois Power Company; managed by the Illinois Department of Natural Resources

**USES** – recreation, public water supply, source of cooling water for power plant

WATER QUALITY - IEPA (1995): "fair"

**POLLUTANT SOURCES** – agriculture, urban runoff/storm sewers, shoreline erosion

**CLASSIFICATION** – eutrophic

## Crab Orchard Lake

**LOCATION** – Williamson County

SIZE/DEPTH – surface area = 6,965 acres; fourth largest inland lake in Illinois; average depth = 9.1 feet; maximum depth = 25 feet

WATERSHED - 109,261 acres

**FORMED** – 1941 by damming the middle reaches of Crab Orchard Creek; managed by the U.S. Fish and Wildlife Service

USES - public water supply, recreation

WATER QUALITY - IEPA (1995): "fair"

**POLLUTANT SOURCES** – agriculture, urban runoff/storm sewers, shoreline erosion, waterfowl, municipal point sources

**CLASSIFICATION** – eutrophic

### Des Plaines River

LENGTH - 156 miles

DRAINAGE - 874,000 acres

TRIBUTARIES/CITIES – major tributaries: Mill Creek, Hickory Creek; major cities: greater Chicago metropolitan area

WATER QUALITY – IEPA (1995): most areas rated "fair;" "good" segments only in Lake County

**POLLUTANT SOURCES** – urban surface runoff, municipal and industrial discharges, channelization, flow regulation

OTHER FACTS – The majority of the watershed is in the greater Chicago metropolitan area and has been extensively developed for urban and industrial use. Rural and agricultural lands along the river are primarily in Lake and Will counties.

## Devil's Kitchen Lake

**LOCATION** – Williamson County

SIZE/DEPTH – surface area = 810 acres; maximum depth = 90 feet; average depth = 36 feet

WATERSHED – 11,700 acres

**FORMED** – 1959 by damming Grassy Creek; managed by the U.S. Fish and Wildlife Service

**USES** - recreation

WATER QUALITY - IEPA (1995): "good"

**POLLUTANT SOURCES** – none

**CLASSIFICATION** – mesotrophic; one of the highest-quality inland lakes in Illinois

# **Embarras River**

LENGTH - 220 miles

DRAINAGE – about 1,561,600 acres in portions of 10 counties

TRIBUTARIES/CITIES – major tributary: North Fork Embarras River; major lake: Lake Charleston; major cities: Charleston, Lawrenceville, Mattoon

WATER QUALITY – IEPA (1995): 173.8 stream miles assessed: 13.2 stream miles "good," 160.6 stream miles "fair"

**POLLUTANT SOURCES** – agricultural runoff, oil field-related runoff, channelization

OTHER FACTS — A 100-mile stretch of the midsection of the Embarras River is designated as a Biologically Significant Stream. The extensive sand-and-gravel bottom of this section provides habitat for a number of rare fish species like the harlequin darter (*Etheostoma histrio*), eastern sand darter (*Ammocrypta pellucidum*), bigeye shiner (*Notropis boops*) and blue sucker (*Cycleptus elongatus*). Mussel diversity is high in this river, and several threatened or endangered species live here.

# Fox Chain O'Lakes

**LOCATION** – Lake County

<code>SIZE/DEPTH</code> – range in size from 45 acres (Redhead Lake) to 1,709 acres (Fox Lake); Bluff, Catherine, Channel, Fox, Grass, Marie, Nippersink, Petite, Pistakee and Redhead lakes, their islands, interconnecting channels and the Fox River to Algonquin; Fox Lake: average depth = 5.6 feet, maximum depth = 14 feet

WATERSHED - 766,146 acres including land in Illinois and Wisconsin

**FORMED** – by glaciers; impounded in 1939 as part of a Civilian Conservation Corps project to increase water depth and recreational opportunities

USES – recreation, flood control

WATER QUALITY – IEPA (1995): "good" for four lakes, "fair" for five lakes; others not monitored in 1995

**POLLUTANT SOURCES** – agriculture, construction, urban runoff, land disposal, recreation

**CLASSIFICATION** – hypereutrophic

#### Fox River

LENGTH - 115 miles

DRAINAGE - 601.600 acres in Illinois and Wisconsin

**TRIBUTARIES/CITIES** – major tributaries: Nippersink Creek, Somonauk Creek; major cities: Elgin, Aurora

WATER QUALITY – IEPA (1995): 41.4 stream miles assessed on upper Fox River: 35.3 stream miles "good," 6.1 stream miles "fair;" 71.2 stream miles assessed on lower Fox River: 60.6 stream miles "good," remainder "fair"

**POLLUTANT SOURCES** – municipal point sources, urban runoff, septic tanks, in-place contaminants, habitat alterations, added nutrients

**OTHER FACTS** – The majority of this watershed is used for agriculture and urban expansion.

## Horseshoe Lake

**LOCATION** – Alexander County

SIZE/DEPTH – surface area = 1,890 acres; maximum depth = 4.9 feet; average depth = 3.0 feet

WATERSHED - 15,177 acres

**FORMED** – formed as an oxbow of the Mississippi River; 1929: lake excavated and Black Creek dammed to deepen the oxbow; managed by the Illinois Department of Natural Resources

**USES** – recreation

WATER QUALITY - IEPA (1995): "fair"

POLLUTANT SOURCES – agricultural runoff, waterfowl wastes CLASSIFICATION – hypereutrophic

## Illinois River

LENGTH - 332 miles

**DRAINAGE** – 18,566,400 acres including land in Illinois, Wisconsin and Indiana

TRIBUTARIES/CITIES – major tributaries: Des Plaines, Fox, Kankakee, Vermilion, Mackinaw, Sangamon, Spoon, La Moine rivers; major cities: La Salle, Peru, Ottawa, Peoria, Pekin, East Peoria

WATER QUALITY - IEPA (1995): "fair"

POLLUTANT SOURCES – upper Illinois: agriculture, hydrologic/habitat alterations, contaminated sediments; middle Illinois: agriculture, point sources, hydrologic/habitat modifications; lower Illinois: agriculture, hydrologic/habitat modifications, point sources

OTHER FACTS – This river is divided into navigation reaches by a series of locks and dams. The river banks contain many lakes and backwaters. Natural sedimentation processes have been altered and accelerated by human activities such as agriculture, levee building and urbanization. Sediments amounting to 13.8 million tons are delivered to the Illinois River annually. The average annual outflow of sediment from the Illinois River at Valley City is 5.6 million tons. On average, 8.2 million tons of sediment are delivered from streams and deposited in the Illinois River valley.

# Kaskaskia River

LENGTH - 292 miles

DRAINAGE - 3,712,640 acres in parts of 17 counties

TRIBUTARIES/CITIES – major tributaries: Okaw River, Beck's Creek, Wolf Creek, East Fork of the Kaskaskia River, Crooked Creek, Shoal Creek and Silver Creek; major cities: Champaign, Belleville, Centralia

WATER QUALITY – IEPA (1995): upper basin, 94.3 miles sampled, 76.7 miles "good" and 17.6 miles "fair;" middle basin, 62.6 stream miles tested, 49.9 miles "good" and 12.7 miles "fair;" lower basin, 58.2 stream miles, 2.5 miles "good" and 55.7 stream miles "fair"

**POLLUTANT SOURCES** – upper basin: priority organics, metals, nutrients and siltation; middle basin: nutrients and siltation; lower basin: nutrients, siltation, flow alteration, other habitat modifications, priority organics and metals

OTHER FACTS – A lock and dam near the mouth of the Kaskaskia River maintains a pool which extends about 13 miles upstream. The lower 36 miles of this river have been channelized for navigation. The flow of the Kaskaskia River is interrupted by two major impoundments: Lake Shelbyville and Lake Carlyle.

#### Lake Decatur

**LOCATION** – Macon County; owned and managed by the City of Decatur

SIZE/DEPTH – surface area = 3,093 acres; average depth = 7.2 feet; maximum depth = 20 feet

WATERSHED - 597,497 acres

FORMED – 1922 by damming the Sangamon River

USES – public water supply and recreation

WATER QUALITY - IEPA (1995): "fair"

**POLLUTANT SOURCES** – nutrients, siltation, suspended solids and organic enrichment (low dissolved oxygen)

**CLASSIFICATION** – eutrophic

# Lake Michigan

**LOCATION** – bordered by Lake and Cook counties

**SIZE/DEPTH** – third largest Great Lake; sixth largest freshwater lake in the world; 63 Illinois shoreline miles (976,640 acres)

WATERSHED – 48,384 acres of Illinois land

FORMED – Wisconsinian glacier

**USES** – residential, commercial and institutional facilities, mining, agricultural operations, industrial processes, electric power generation, navigation, sanitation, recreation, and habitat for fishes, waterfowl and other aquatic organisms

**WATER QUALITY** – monitored through a cooperative agreement between IEPA and the City of Chicago

**POLLUTANT SOURCES** – byproducts of industry, urban runoff, combustion of fossil fuels and agricultural runoff

**CLASSIFICATION** – oligotrophic

# Lake Shelbyville

**LOCATION** – Shelby and Moultrie counties

SIZE/DEPTH – surface area = 11,000 acres; third largest inland lake in Illinois; average depth = 16.5 feet; maximum depth = 67 feet

WATERSHED - 659,200 acres

**FORMED** – 1971 by damming the Kaskaskia River; managed by the U.S. Army Corps of Engineers

**USES** - recreation

WATER QUALITY - IEPA (1995): "good"

**POLLUTANT SOURCES** – nutrients, siltation, suspended solids and organic enrichment (low dissolved oxygen)

**CLASSIFICATION** – eutrophic

# Little Wabash River

LENGTH - 237 miles

**DRAINAGE** - 2,124,800 acres

**TRIBUTARIES/CITIES** – major tributaries: Big Muddy Creek, Elm River, Skillet Fork; major cities: Mattoon, Effingham

WATER QUALITY – IEPA (1995): 182.5 stream miles assessed, 21.1 miles "good," 161.4 miles "fair"

**POLLUTANT SOURCES** – nutrients, siltation, flow alteration, oil and grease

OTHER FACTS – The southern portion of Illinois was the first to be settled by Europeans. Towns, such as Carmi, were built along the river to provide easy access to trade goods. Flatboats were used to transport the agricultural products raised in the region to larger cities downstream. Lake Mattoon is located in the path of the Little Wabash River.

# Mississippi River

LENGTH - 581 miles as an Illinois border

**DRAINAGE** – over 30,000,000 acres in Illinois (including small areas in Wisconsin and Indiana)

TRIBUTARIES/CITIES – major tributaries: Galena, Apple, Rock, Edwards, Illinois, Kaskaskia and Big Muddy rivers: major cities: Moline, East Moline, Rock Island, Quincy, Alton, East St. Louis, Cahokia

WATER QUALITY - IEPA (1995): "fair"

**POLLUTANT SOURCES** – nutrients, siltation, flow alteration, other habitat alterations

OTHER FACTS – The Mississippi River is the largest river in the United States, carrying about 40 percent of the nation's rainfall to the sea. It discharges about 620,000 cubic feet per second into the Gulf of Mexico.

## Ohio River

LENGTH - composes 133 miles of Illinois' border

DRAINAGE - 7,079,680 acres in Illinois

TRIBUTARIES/CITIES – major tributaries: Wabash and Saline rivers; major cities: Rosiclare, Golconda, Brookport, Metropolis, Cairo

**WATER QUALITY** – assessed by the Ohio River Valley Water Sanitation Commission (ORSANCO)

**POLLUTANT SOURCES** – nutrients, siltation, flow alteration, habitat modification

OTHER FACTS – The Ohio River was important in the settlement of Illinois by Europeans. In 1818, when Illinois became a state, nearly the entire population of the state was in southern Illinois. Gallatin County, with 3,200 settlers, was the most populous area in the eastern part of the state. Shawneetown, which was first settled in 1806 and resettled in 1809, was the first permanent community and chief river port in eastern Illinois. Due to the salt springs found 12 miles inland, in 1809 Shawneetown had more business activity than any place west of Pittsburgh.

## Rend Lake

**LOCATION** – Franklin and Jefferson counties

SIZE/DEPTH - 24,000 acres; maximum depth = 40 feet; average depth = 9 feet

WATERSHED - 320,000 acres

**FORMED** – 1969-70 by damming the Big Muddy River; managed by the United States Army Corps of Engineers

**USES** – flood control, water quality control, water supplies, area redevelopment, recreation, fish and wildlife conservation

WATER QUALITY - IEPA (1995): "good"

**POLLUTANT SOURCES** – nutrients, siltation, organic enrichment (low dissolved oxygen) and suspended solids

**CLASSIFICATION** – eutrophic

## **Rock River**

LENGTH - 163 miles in Illinois

DRAINAGE - 2,272,000 acres in Illinois

TRIBUTARIES/CITIES – major tributaries: Pecatonica, Kishwaukee and Green rivers; major cities: Rockford, Moline, Rock Island, De Kalb, Sterling, Rock Falls, Freeport, Dixon, Belvidere

WATER QUALITY – IEPA (1995): 69 stream miles "good" and 97.9 stream miles "fair"

**POLLUTANT SOURCES** – nutrients (particularly phosphorus), suspended solids, channel modifications

OTHER FACTS – The name "Rockford" comes from a rock-bottomed "ford," or shallow area, along the Rock River where settlers could cross the river. This ford and the people it drew together helped lead to the development of one of Illinois' largest cities.

# Saline River/Bay Creek River Basin

LENGTH - 75.5 miles for Saline River

**DRAINAGE** - 1,128,300 acres

TRIBUTARIES/CITIES – major tributaries: South, Middle and North Forks of the Saline River; major cities: Marion, Harrisburg, Eldorado, Norris City, Shawneetown

WATER QUALITY – IEPA (1995): Saline River: all 28.2 stream miles assessed "fair;" North Fork Saline River: "fair;" Bay Creek: 61.9 stream miles assessed, 12.8 miles "good," 49.1 miles "fair"

POLLUTANT SOURCES – Saline River: inorganics, nutrients, siltation, organic enrichment (low dissolved oxygen), other habitat alterations; North Fork Saline River: metals, inorganics, nutrients, other habitat alterations, suspended solids; Bay Creek: nutrients, siltation, flow alteration, other habitat alterations

OTHER FACTS – Big Creek, Big Grand Pierre Creek and Lusk Creek are all found in this section of Illinois. These streams have some of the highest quality running waters in Illinois.

# Sangamon River

LENGTH - 206 miles

**DRAINAGE** - 3,456,000 acres

**TRIBUTARIES/CITIES** – major tributaries: Salt Creek, South Fork; major cities: Springfield, Decatur

WATER QUALITY - IEPA (1995): "fair"

**POLLUTANT SOURCES** – nutrients, siltation, organic enrichment (low dissolved oxygen)

OTHER FACTS — One of the major natural features of the Sangamon River is the forest tract at Robert Allerton Park near Monticello. This natural area is an example of a relatively undisturbed stream-valley ecosystem including bottomland forest, upland forest, reclaimed prairie and wetlands. Lake Decatur is the only lake located directly on this river.

# **Spoon River**

LENGTH - 163.6 miles

**DRAINAGE** - 1,187,000 acres

**TRIBUTARIES/CITIES** – major tributaries: Brush, Cedar and Swan creeks; major cities: Wyoming, Lewistown

WATER QUALITY - IEPA (1995): "fair"

POLLUTANT SOURCES - siltation, nutrients, coal mining

OTHER FACTS – This river was made famous by a collection of poems, the "Spoon River Anthology," published in 1914-15 by Edgar Lee Masters. Although born in Kansas in 1868, Masters was raised in the Lewistown area and was impressed by the Spoon River and the Oak Hill Cemetery nearby. His poems are based on his impressions of the area and the local residents' lives.

# Vermilion (Wabash) River Basin

LENGTH - 105.6 miles

DRAINAGE - Vermilion River: 900,000 acres; Little Vermilion River: 125,440 acres in Illinois

TRIBUTARIES/CITIES – major tributaries: North Fork, Middle Fork and Salt Fork Vermilion rivers and Stony Creek; major cities: Rossville, Danville, Rantoul, Champaign, Urbana

WATER QUALITY - IEPA (1995): Vermilion River, "fair;" North Fork Vermilion River, "good;" Middle Fork of the Vermilion River, "good;" Little Vermilion River, "good"

POLLUTANT SOURCES - Vermilion River: nutrients, siltation; North Fork Vermilion River: nutrients, siltation

OTHER FACTS – The Middle Fork Vermilion River is the only National Scenic River in Illinois. The good water quality and good instream habitat have resulted in a diverse fish community in this river. The Little Vermilion River is considered to be an "A" stream, or a unique aquatic resource. It supports several species that are considered threatened or endangered in Illinois.

#### Wabash River

LENGTH - 230 miles as an Illinois border river DRAINAGE - 5,496,500 acres in Illinois

TRIBUTARIES/CITIES – major tributaries: Embarras, Vermilion and Little Wabash rivers; major cities: Palestine, Mt. Carmel

WATER QUALITY - IEPA (1995): middle Wabash River: "good;" lower Wabash River: "fair"

POLLUTANT SOURCES – lower Wabash: nutrients, siltation, metals, salinity

OTHER FACTS – The Wabash is the largest natural free-flowing river east of the Mississippi River.



ILLINOIS Equal opportunity to participate in programs of the Illinois Department of Natural Resources (IDNR) and those funded by the U.S. Fish and Wildlife Service and other agencies is available to all individuals regardless of race, sex, national origin, disability, age, religion or other non-merit factors. If you believe

NATURAL you have been discriminated against, contact the funding source's civil rights office and/or the Equal Employment Opportunity Officer, IDNR, One Natural Resources Way, Springfield, IL 62702-1271; 217/785-0067; TTY 217/782-9175. This information may be provided in an alternative format if required. Contact the DNR Clearinghouse at 217/782-7498 for assistance.

Aquatic Illinois © 2011, Illinois Department of Natural Resources DNR 158 - 6/12 • IOCI 12-0831